not at the mere calculation thereof for use in statistical report form in the quotation of prices. He therefore suggests (p. 140) an accounting procedure supposed to meet this objection.

The opposition view is presented forcefully by Professors Paton and Stevenson on pages 613-615 of their general text. To these writers, interest charges, whether contractual or non-contractual, are distribution-of-income, not expense, items. But, they say, if these charges are to be made at all, the logical procedure would be to distribute among the factory products the normal return on all the capital invested, not that on the fixed assets only. With this last contention, at least, the reviewer is inclined to agree. But Professors Paton and Stevenson appear to believe that the problem in hand is being solved on other than logical ground. For they say: "The use of interest charges in cost accounts on anything like a rational basis is a procedure which faces almost insurmountable practical obstacles. It is probably this fact rather than the logic of the case that is causing cost accountants to begin to recover from the interest obsession" (p. 615).

Not improbably the issue is beclouded by reason of the different points of view involved. The cost accountant wishes, among other things, to furnish the selling department adequate data upon which to base a price policy. The general accountant has in mind the preparation of correct, unpadded statements of condition and of operation. For the purposes of the one certain information is needed, which by the other should be discarded. Reconciliation of the opposing ideas ought to be possible, perhaps along the lines suggested by Messrs. Nicholson and Rohrbach.

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Public Utility Rate Fixing. By C. E. GRUNSKY. (San Francisco: Technical Publishing Company. 1918. Pp. 168. $2.50.)

Articles which were originally published in the *Journal of Electricity* are now brought together in this collection with very little change in the text. As articles, each was prepared to stand complete by itself; consequently, as a book, they do not hang very well together, present a great deal of repetition, and do not cover adequately the ground of public utility rate fixing. But whatever the technical defects of the book, which are recognized by Mr. Grunsky, the author is an eminent authority on valuation and rate

making; his ideas are forcibly presented and deserve attention.

There are ten chapters covering valuation for rate purposes, the relation of depreciation to the rate base, the special appraisal of real estate and water rights, rate of return upon investment, and preparation of a rate schedule. Mr. Grunsky thoroughly approves regulation of public utilities, even believes that similar control should be extended over other important industries of a monopolistic character, and he is particularly interested in establishing a satisfactory procedure with which regulation may be adequately administered.

As to valuation, Mr. Grunsky urges that normal actual investment should be taken as the rate base; that is, the cash actually put into the business by the investors. When this amount has been established, he would make neither a deduction for depreciation nor an addition for appreciation; he would recognize only the definite historical fact of investment. Upon this figure he would permit the company to earn a fair return after paying for operating expenses and taxes.

With this general view of the rate-base I feel in entire accord, but should disagree with the application. In the great majority of cases in which appraisals are made, there are no actual investment figures, and the only practical way to determine the investment is through a valuation of the existing property. Then, immediately, the question arises whether the inventory items should be valued at their prevailing prices, or at prices when the different units were individually installed—whether *reproduction* or *installation* cost should be used. Next, after a gross figure has been determined, the further question arises whether any deduction should be made for depreciation to take account of the existing age and condition of the property.

The author's insistence upon actual investment is beside the point, when such direct figures are not to be had. The problem is what would be a fair substitute figure? The author apparently would resort to *installation* cost of the property, without deduction for depreciation. But obviously such an amount may be very much greater than the actual investment, or very much less; there is no relation between the two, and there is no logical necessity for holding to undepreciated cost. Further, the author insists that the value or the quality of the service furnished by a utility has nothing to do with age of the property, and that this fact further shows that no deduction for depreciation should be made from the

investment. But the issue is not whether the investment shall be diminished because of age of plant, but to find a reasonable amount where the investment is unknown; consequently, the author's logic seems to break down. In the simplest form the question is, Would you allow the same valuation, assuming equal quality of service, whether (1) the plant is entirely new and up-to-date in every way; (2) whether it is of an average age and average condition; or (3) whether it is old, with many parts that must soon be retired? The answer must be obvious and the courts have ruled accordingly.

The author insists also that ordinary depreciation charges to operating expenses are not necessary, provided that adequate allowance is made out of earnings to take care of renewals as they are needed. This view, too, is presented to show that accrued depreciation should not be deducted from the rate base. Again, the logical relationship pointed out seems beside the point. Just how renewals should be taken care of is a matter of policy that can be variously determined, provided only that a sufficient allowance from earnings is actually made. But this has no bearing upon the determination of the rate base when a company is first brought under regulation and the amount of actual investment is unknown. When the uncertainty of investment is once cleared away through an appraisal, then, if regulation is to be systematically administered, only actual additional investment should be added; and no matter how renewals are handled the rate base should not be diminished because of any particular way of computing depreciation or allowing for renewals. But this matter would take care of itself through automatic accounting processes.

In general, it seems to me that the author's idea applies admirably to a company after a valuation of its property has been made and the uncertainty as to past investment has been cleared away. Thereafter, actual further investment should be added to the established rate base, and there would be no ground for further deduction for depreciation. Any other procedure would necessarily result in more or less indefiniteness and confusion in administration. But the author's view cannot be reasonably applied to a company newly brought under regulation, where the immediate problem is to determine the amount of investment entitled to a return. In such a case, there must be an appraisal and there must be reasonable regard for the physical condition of the property.

The immediate result of rate regulation is to limit the return upon investment, which tends to destroy the profit incentive leading to efficiency of management. This has been the subject of extensive discussion, and doubtless is a fundamental difficulty that raises doubt as to the desirability of rate restrictions. To meet this difficulty, also to give the company a share in the general prosperity of the community, the author urges that in addition to a fixed return upon investment, a percentage of gross receipts should be allowed, starting, say, with 15 per cent upon a gross income of $10,000 a year, and grading down to 5 per cent upon a gross income of $100,000,000. The objection to such an arrangement is that the percentage allowance would have no direct relation to management and would, therefore, serve only remotely as an incentive to efficiency. Personally, I believe that the desire for profit has been greatly exaggerated as a motive for efficiency in large industrial plants, but it doubtless is an important factor. In regulated enterprises, however, it ceases to a large extent to operate, and other forces must be relied upon and stimulated. While some sort of a bonus plan may be worth trying there are, in any event, grave difficulties of administration, so that the chances for success do not seem very great. Certainly there is no reason for giving a share either in gross or net earnings, if the indications are not clear that the return will serve as a direct stimulus to better enterprise.

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NEW BOOKS

Adams, H. C. *American railway accounting. A commentary.* (New York: Holt. 1918. Pp. x, 465. $3.)

That the man who was in charge of the statistical and accounting work of the Interstate Commerce Commission from 1887 to 1911 and who played a part of inestimable value in the nation-wide symposium of 1907 to 1910, out of which American railway accounting emerged as a standardized system, should decide to publish a commentary on this subject is a source of much satisfaction to those who have long appreciated his work in the field of public service industries. In writing this book the purpose of the author has been to deal with the fundamental and more ultimately significant aspects of accounting entries and statements rather than to present a treatise on the practical management of a railway auditor's office. The book is divided into nine chapters and three appendices. Chapter one deals with the background and character of the task of the railway accountant. Chapter two considers the structure and classification of